Complete Summary

GUIDELINE TITLE

Ectoparasitic infections. Sexually transmitted diseases treatment guidelines 2002.

BIBLIOGRAPHIC SOURCE(S)

Centers for Disease Control and Prevention. Ectoparasitic infections. Sexually transmitted diseases treatment guidelines. MMWR Recomm Rep 2002 May 10;51(RR-6):67-9.

COMPLETE SUMMARY CONTENT

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SCOPE

DISEASE/CONDITION(S)

Ectoparasitic infections:

- Pediculosis pubis (pubic lice)
- Scabies (infestation with Sarcoptes scabiei), including crusted or Norwegian scabies

GUIDELINE CATEGORY

Diagnosis
Evaluation
Management
Treatment

CLINICAL SPECIALTY

Dermatology
Family Practice
Internal Medicine

Obstetrics and Gynecology
Pediatrics
Preventive Medicine

INTENDED USERS

Health Care Providers
Managed Care Organizations
Physicians

GUIDELINE OBJECTIVE(S)

- To update the 1998 Guidelines for Treatment of Sexually Transmitted Diseases (MMWR 1998;47[No. RR-1])
- To assist physicians and other health-care providers in preventing and treating sexually transmitted diseases (STDs)
- To present updated recommendations for the management and treatment of pediculosis pubis (pubic lice) and scabies

TARGET POPULATION

Patients with suspected ectoparasitic infections, such as pediculosis pubis (pubic lice) and scabies

INTERVENTIONS AND PRACTICES CONSIDERED

Note from the National Guideline Clearinghouse and the Centers for Disease Control and Prevention: These guidelines focus on the treatment and counseling of individual patients and do not address other community services and interventions that are important in sexually transmitted disease/human immunodeficiency virus (STD/HIV) prevention.

Pediculosis pubis (pubic lice)

1. Permethrin 1% cream rinse
2. *Lindane 1% shampoo
3. Pyrethrins with piperonyl butoxide
4. Decontamination of bedding and clothing with machine washing and drying using the heat cycle or dry-cleaning OR removal from body contact for at least 72 hours
5. Evaluation for other sexually transmitted diseases
6. Follow-up evaluation
7. Management of sex partners
8. Special considerations for pregnant and lactating women and for HIV-infected persons

Scabies

1. Permethrin cream 5%
2. *Lindane 1% lotion or cream
3. Ivermectin (oral)

4. Decontamination of bedding and clothing with machine washing and drying using the heat cycle or dry-cleaning OR removal from body contact for at least 72 hours
5. Follow-up evaluation
6. Management of sex partners and household contacts
7. Consultation with specialists in the cases of crusted scabies or outbreaks in communities, nursing homes, and other institutional settings
8. Special considerations in infants, young children, pregnant and lactating women, and HIV-infected persons

*Please Note: On March 28, 2003, The Food and Drug Administration (FDA) issued a public health advisory concerning the use of topical formulations of Lindane Lotion and Lindane Shampoo for the treatment of scabies and lice. For more information on this public health advisory, please see the U.S. Food and Drug Administration Center for Drug Evaluation and Research (CDER) Web site.

MAJOR OUTCOMES CONSIDERED

- Alleviation of signs and symptoms
- Prevention of sequelae
- Prevention of transmission
- Toxicity of treatment

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Not stated

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Subjective Review

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Beginning in 2000, Centers for Disease Control and Prevention (CDC) personnel and professionals knowledgeable in the field of sexually transmitted diseases (STDs) systematically reviewed literature (i.e., published abstracts and peer-reviewed journal articles) concerning each of the major STDs, focusing on information that had become available since publication of the 1998 Guidelines for Treatment of Sexually Transmitted Diseases. Background papers were written and tables of evidence constructed summarizing the type of study (e.g., randomized controlled trial or case series), study population and setting, treatments or other interventions, outcome measures assessed, reported findings, and weaknesses and biases in study design and analysis. A draft document was developed on the basis of the reviews.

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not stated

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Note from the National Guideline Clearinghouse and the Centers for Disease Control and Prevention: When more than one therapeutic regimen is recommended, the sequence is alphabetized unless the choices for therapy are prioritized based on efficacy, convenience, or cost. For sexually transmitted diseases (STDs) with more than one recommended regimen, almost all regimens have similar efficacy and similar rates of intolerance or toxicity unless otherwise specified.

<u>Pediculosis Pubis</u>

Patients who have pediculosis pubis (i.e., pubic lice) usually seek medical attention because of pruritus or because they notice lice or nits on their pubic hair. Pediculosis pubis is usually transmitted by sexual contact.

Recommended Regimens for Pediculosis Pubis

Permethrin 1% cream rinse applied to affected areas and washed off after 10 minutes.

OR

*Lindane 1% shampoo applied for 4 minutes to the affected area and then thoroughly washed off. This regimen is not recommended for pregnant or lactating women or for children aged <2 years.

OR

Pyrethrins with piperonyl butoxide applied to the affected area and washed off after 10 minutes.

*Lindane toxicity, as indicated by seizure and aplastic anemia, has not been reported when treatment was limited to the recommended 4-minute period. Permethrin has less potential for toxicity than lindane.

*Please Note: On March 28, 2003, The Food and Drug Administration (FDA) issued a public health advisory concerning the use of topical formulations of Lindane Lotion and Lindane Shampoo for the treatment of scabies and lice. For more information on this public health advisory, please see the U.S. Food and Drug Administration Center for Drug Evaluation and Research (CDER) Web site.

Other Management Considerations

The recommended regimens should not be applied to the eyes. Pediculosis of the eyelashes should be treated by applying occlusive ophthalmic ointment to the eyelid margins twice a day for 10 days.

Bedding and clothing should be decontaminated (i.e., machine-washed, machine-dried using the heat cycle, or dry-cleaned) or removed from body contact for at least 72 hours. Fumigation of living areas is not necessary.

Patients with pediculosis pubis should be evaluated for other sexually transmitted diseases.

Follow-Up

Patients should be evaluated after 1 week if symptoms persist. Re-treatment may be necessary if lice are found or if eggs are observed at the hair-skin junction. Patients who do not respond to one of the recommended regimens should be re-treated with an alternative regimen.

Management of Sex Partners

Sex partners within the last month should be treated. Patients should avoid sexual contact with their sex partner(s) until patients and partners have been treated and reevaluated to rule out persistent disease.

Special Considerations

Pregnancy

Pregnant and lactating women should be treated with either permethrin or pyrethrins with piperonyl butoxide; lindane is contraindicated in pregnancy.

HIV Infection

Patients who have pediculosis pubis and also are infected with HIV should receive the same treatment regimen as those who are HIV-negative.

Scabies

The predominant symptom of scabies is pruritus. Sensitization to Sarcoptes scabiei must occur before pruritus begins. The first time a person is infected with Sarcoptes scabiei, sensitization takes up to several weeks to develop. However, pruritus might occur within 24 hours after a subsequent reinfestation. Scabies in adults often is sexually acquired, although scabies in children usually is not.

Recommended Regimen for Scabies

Permethrin cream (5%) applied to all areas of the body from the neck down and washed off after 8--14 hours.

Alternative Regimens for Scabies

*Lindane (1%) 1 oz. of lotion or 30 g of cream applied in a thin layer to all areas of the body from the neck down and thoroughly washed off after 8 hours

OR

Ivermectin 200 micrograms/kg orally, repeated in 2 weeks.

Note: Lindane should not be used immediately after a bath or shower, and it should not be used by persons who have extensive dermatitis, pregnant or lactating women, or children aged <2 years.

Permethrin is effective and safe but costs more than lindane. *Lindane is effective in most areas of the United States; however, lindane resistance has been reported in some areas of the world, including parts of the United States. Seizures have occurred when lindane was applied after a bath or used by patients who had extensive dermatitis. Aplastic anemia following lindane use also has been reported.

One study has demonstrated increased mortality among elderly, debilitated persons who received ivermectin, but this observation has not been confirmed in subsequent reports.

*Please Note: On March 28, 2003, The Food and Drug Administration (FDA) issued a public health advisory concerning the use of topical formulations of Lindane Lotion and Lindane Shampoo for the treatment of scabies and lice. For more information on this public health advisory, please see the U.S. Food and Drug Administration Center for Drug Evaluation and Research (CDER) Web site.

Other Management Considerations

Bedding and clothing should be decontaminated (i.e., either machine-washed, machine-dried using the hot cycle, or dry-cleaned) or removed from body contact for at least 72 hours. Fumigation of living areas is unnecessary.

Crusted Scabies

Crusted scabies (i.e., Norwegian scabies) is an aggressive infestation that usually occurs in immunodeficient, debilitated, or malnourished persons. Patients who are receiving systemic or potent topical glucocorticoids, organ transplant recipients, mentally retarded or physically incapacitated persons, human immunodeficiency virus (HIV)-infected or human T-lymphotrophic virus-1 (HTLV-1)-infected persons, and persons with various hematologic malignancies are at risk for developing crusted scabies. Crusted scabies is associated with greater transmissibility than scabies. No controlled therapeutic studies for crusted scabies have been conducted, and the appropriate treatment remains unclear. Substantial treatment failure might occur with single topical scabicide or oral ivermectin treatment. Some specialists recommend combined treatment with a topical scabicide and oral ivermectin or repeated treatments with ivermectin. Lindane should be avoided because of risks of neurotoxicity with heavy applications and denuded skin. Patient's fingernails should be closely trimmed to reduce injury from excessive scratching.

Follow-Up

Patients should be informed that the rash and pruritus of scabies may persist for up to 2 weeks after treatment. Symptoms or signs that persist for >2 weeks can be attributed to several factors. Treatment failure may be caused by resistance to medication or by faulty application of topical scabicides. Patients with crusted scabies may have poor penetration into thick scaly skin and harbor mites in these difficult-to-penetrate layers. Particular attention must be given to the fingernails of these patients. Reinfection from family members or fomites may occur in the absence of appropriate contact treatment and washing of bedding and clothing. Even when treatment is successful and reinfection is avoided, symptoms may persist or worsen as a result of allergic dermatitis. Finally, household mites might cause symptoms to persist as a result of cross-reactivity between antigens.

Some specialists recommend re-treatment after 1--2 weeks for patients who are still symptomatic; others recommend re-treatment only if live mites are observed. Patients who do not respond to the recommended treatment should be re-treated with an alternative regimen.

Management of Sex Partners and Household Contacts

Both sexual and close personal or household contacts within the preceding month should be examined and treated.

Management of Outbreaks in Communities, Nursing Homes, and Other Institutional Settings

Scabies epidemics often occur in nursing homes, hospitals, residential facilities, and communities. Control of an epidemic can only be achieved by treatment of the entire population at risk. Ivermectin can be considered in this setting, especially if treatment with topical scabicides fails. Epidemics should be managed in consultation with a specialist.

Special Considerations

Infants, Young Children, and Pregnant or Lactating Women

Infants, young children, and pregnant or lactating women should not be treated with lindane. They can be treated with permethrin.

Ivermectin is not recommended for pregnant or lactating patients. The safety of ivermectin in children who weigh <15 kg has not been determined.

HIV Infection

Patients who have uncomplicated scabies and also are infected with HIV should receive the same treatment regimens as those who are HIV-negative. HIV-infected patients and others who are immunosuppressed are at increased risk for crusted scabies. Such patients should be managed in consultation with a specialist.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is not specifically stated for each recommendation.

Throughout the 2002 guideline document, the evidence used as the basis for specific recommendations is discussed briefly. More comprehensive, annotated discussions of such evidence will appear in background papers that will be published in a supplement issue of the journal Clinical Infectious Diseases.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

- Appropriate diagnosis, management and treatment of patients who have ectoparasitic infections, such as pediculosis pubis (pubic lice), scabies, and crusted scabies
- Decreased morbidity due to ectoparasitic infections
- Prevention of transmission of pediculosis pubis and scabies

POTENTIAL HARMS

Pediculosis pubis

Lindane toxicity, as indicated by seizure and aplastic anemia, has not been reported when treatment was limited to the recommended 4-minute period. Permethrin has less potential toxicity than lindane.

Scabies

- Lindane should not be used immediately after a bath or shower, and it should not be used by persons who have extensive dermatitis, pregnant or lactating women, or children less than 2 years. Lindane resistance has been reported in some areas of the world, including parts of the Unites States. Seizures have occurred when lindane was applied after a bath or used by patients who had extensive dermatitis. Aplastic anemia following lindane use has also has been reported.
- One study has demonstrated increased mortality among elderly, debilitated persons who received ivermectin, but this observation has not been confirmed in subsequent reports
- Infants, young children and pregnant or lactating women should not be treated with lindane. They can be treated with permethrin.
- Ivermectin is not recommended for pregnant or lactating patients. The safety of ivermectin in children who weigh less than 15 kilograms has not been determined.

Please Note: On March 28, 2003, The Food and Drug Administration (FDA) issued a public health advisory concerning the use of topical formulations of Lindane Lotion and Lindane Shampoo for the treatment of scabies and lice. For more information on this public health advisory, please see the U.S. Food and Drug Administration Center for Drug Evaluation and Research (CDER) Web site.

Subgroups Most Likely to be Harmed:

- Pregnant or lactating women
- Patients with extensive dermatitis
- Children less than 2 years old or children who weigh less than 15 kilograms
- Elderly patients

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

These recommendations were developed in consultation with public- and private-sector professionals knowledgeable in the treatment of patients with sexually transmitted diseases (STDs). They are applicable to various patient-care settings, including family planning clinics, private physicians' offices, managed care organizations, and other primary-care facilities. When using these guidelines, the disease prevalence and other characteristics of the medical practice setting should be considered. These recommendations should be regarded as a source of clinical guidance and not as standards or inflexible rules. These guidelines focus on the treatment and counseling of individual patients and do not address other community services and interventions that are important in sexually transmitted disease/human immunodeficiency virus (STD/HIV) prevention.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better
Staying Healthy

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Centers for Disease Control and Prevention. Ectoparasitic infections. Sexually transmitted diseases treatment guidelines. MMWR Recomm Rep 2002 May 10;51(RR-6):67-9.

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

1993 (revised 2002 May 10)

GUIDELINE DEVELOPER(S)

Centers for Disease Control and Prevention - Federal Government Agency [U.S.]

GUIDELINE DEVELOPER COMMENT

These guidelines for the treatment of patients who have sexually transmitted diseases (STDs) were developed by the Centers for Disease Control and Prevention (CDC) after consultation with a group of professionals knowledgeable in the field of STDs who met in Atlanta on September 26--28, 2000.

SOURCE(S) OF FUNDING

United States Government

GUIDELINE COMMITTEE

Not stated

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

The information in this report updates the "1998 Sexually Transmitted Diseases Treatment Guidelines" (MMWR 1998;47[No. RR-1]).

GUIDELINE AVAILABILITY

Electronic copies: Available from the Centers for Disease Control and Prevention (CDC) Web site:

- HTML version
- Portable Document Format (PDF)

Print copies: Available from the Centers for Disease Control and Prevention, MMWR, Atlanta, GA 30333. Additional copies can be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402-9325; (202) 783-3238.

AVAILABILITY OF COMPANION DOCUMENTS

The following is available:

- Workowski KA, Levine WC, Wasserheit JN. U.S. Centers for Disease Control and Prevention guidelines for the treatment of sexually transmitted diseases: an opportunity to unify clinical and public health practice. Ann Intern Med. 2002 Aug 20;137(4):255-62.

Electronic copies: Available through Annals of Internal Medicine Online.

PATIENT RESOURCES

None available

NGC STATUS

This summary was completed by ECRI on September 5, 2002.

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